

Johnson Space Center Procedural Requirements

JPR No.:	1040.4	
Effective Date:	4/14/2009	
Expiration Date:	4/14/2014	
(Formerly JSC-05900)		

Verify that this is the correct version before use

Compliance is Mandatory

EMERGENCY PREPAREDNESS PLAN

Responsible Office: Center Operations Directorate

Note: New National Incident Management System (NIMS) information is shown in red ink in this document.



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Change History Log

Revision	Date	Originator	Description of Changes
Baseline	April 2009	Robert Gaffney x34249	Initial Release

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P. PREFACE

P.1 PURPOSE

- a. The NASA Johnson Space Center (JSC) Emergency Preparedness Plan (EPP) describes the structure and processes comprising the Center's approach to emergency incident management, which is designed to integrate the efforts and resources of multiple JSC organizations or Federal, State, local, tribal, private-sector, and nongovernmental organizations for an Incident of National Significance. This JSC Procedural Requirements (JPR) establishes procedures and responsibilities for development, maintenance, and exercise of emergency preparedness plans for JSC component facilities. The EPP is used to define the process of effectively managing incidents, working with regional organizations, and assuring appropriate training, communications interoperability and resource management. The JPR describes the JSC emergency response organization and assigns responsibilities for various emergency tasks.
- b. Appendices provide relevant and more detailed supporting information, including terms, definitions, acronyms, authorities, and a compilation of emergency references. Hazard Specific Appendices detail the explicit readiness, response and recovery assignments and responsibilities for JSC organizations for definitive hazards at JSC such as fire and explosion, severe weather, security contingencies, hazardous materials incidents, aircraft mishaps, and biologic threats. This JPR also provides a framework for more specific functional annexes that detail the missions, policies, structures, and coordination of designated JSC organizations for support of this JPR.

P.2 APPLICABILITY

This JPR is applicable to all JSC organizations at the JSC main site, Ellington Field and Sonny Carter Training Facility (SCTF) in Houston, TX, the White Sands Test Facility (WSTF) in Las Cruces, NM, and the El Paso Forward Operating Location (EPFOL), El Paso International Airport, El Paso, TX. The primary audience for this document includes the JSC Center Director, senior staff, the emergency management staff, JSC first and emergency responders, department and office heads and their senior staff members with emergency duties, and others who may participate in JSC mitigation, preparedness, response and recovery efforts.

P.3 AUTHORITY

(All document citations are assumed to be the latest version unless otherwise noted.)

Federal Civil Defense Act of 1950, PL 81-920, as amended.

Robert T. Stafford Disaster Relief and Emergency Assistance Act, PL 93-288

Executive Order (EO) 12148, Federal Emergency Management, July 20, 1979.

EO 12656, Assignment of Emergency Preparedness Responsibilities, November 18, 1988.

29 Code of Federal Regulation (CFR) 1910.38, Employee Emergency Plans and Fire Prevention Plans

29 CFR 1910.120, Hazardous Waste Operations and Emergency Response

NPD 8710.1, Emergency Preparedness Program

NPR 8715.2, NASA Emergency Preparedness Plan Procedural Requirements

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P.4 APPLICABLE DOCUMENTS

(All document citations are assumed to be the latest version unless otherwise noted.)

29 CFR Part 1910.119, "Process Safety Management of Highly Hazardous Chemicals Standard."

29 CFR Part 1910.120, "Hazardous Waste Operations and Emergency Response."

29 CFR Part 1910.165, "Employee Alarm Systems."

29 CFR Part 1910.1000, "Air Contaminants."

29 CFR Part 1910.1200, "Hazard Communication."

29 CFR Part 1910.1450, "Occupational Exposure to Hazardous Chemicals in Laboratories."

29 CFR Part 1926.65, "Safety and Health Regulations for Construction: Occupational Health and Environmental Controls: Hazardous Waste Operations and Emergency Response."

JPD 1040.2, JSC Emergency Preparedness Program

JPR 1440.3, JSC Files and Records Management Procedures

NASA Critical Infrastructure Protection Plan

HSPD 5, Management of Domestic Incidents, dated February 28, 2003

HSPD 8, National Preparedness, dated December 17, 2003

National Response Framework, Department of Homeland Security, January 2008.

P.5 MEASUREMENT/VERIFICATION:

Metrics will be focused on the NASA Strategic Plan, President's Management Agenda, Department of Homeland Security, and Office of Management and Budget mandates to document performance and progress. Supplemental metrics and reporting requirements will be developed and implemented depending upon internal/external mandates.

P.6 CANCELLATION / RESCISSION:

This JPR cancels JSC-05900, Revision D, JSC Emergency Preparedness Program, dated January 2005.

Original Signed By:		
Joel B. Walker		

Director, Center Operations

Dist: JDMS

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1.0 BASIC EMERGENCY PREPAREDNESS

This JPR specifies actions to support the NASA and JSC missions under emergency conditions and the Department of Homeland Security (DHS)/Federal Emergency Management Agency (FEMA) under the National Response Framework (NRF). This JPR outlines procedural requirements for implementing the JSC Emergency Preparedness Program per JPD 1040.2, Emergency Preparedness Program, as it applies to JSC, component facilities, and contractor activities where specified by contract. This JPR implements the NRP and NASA EPP. Following the provisions of Executive Orders 12148 and 12656, NASA will establish emergency response plans and be prepared to:

- a. Protect lives.
- b. Protect the environment.
- c. Minimize the loss of, or damage to, NASA resources.
- d. Provide for the continuous operation or timely resumption of critical services and missions.
- e. Aid in the recovery and timely resumption of normal operations.
- f. Assist in mitigating hazards and minimizing the effects of a natural or technological emergency or disaster.
- g. Support local, State and Federal agencies and appropriate emergency response authorities.

1.1 Program Plan Situations

- 1.1.1 JSC and component facilities are exposed to multiple hazards capable of causing potential casualties, damage to facilities and disrupting operations. A summary of hazards and vulnerabilities is provided in Figure 1. Site plans for JSC and details on the types of emergencies that each component facility could expect to face are contained in this document and individual facility Emergency Action Plans (EAP). Copies of the EAPs are posted on a central database on the JSC internal website for review. The link for this document is contained in the footer.
- 1.1.2 JSC will be open each regular workday, regardless of weather or other emergency conditions that may develop, unless employees are notified otherwise. The Center Director is authorized to release employees and limit or discontinue Center operations during severe weather conditions or other emergency situations. Supervisors and other managers will consult with the Director, Human Resources, to determine whether employees should be dismissed under limited conditions affecting only a portion of the work force (e.g., a power failure in a building). Supervisors may adopt liberal leave policies for employees who demonstrate a particular vulnerability for themselves or their family from a severe weather condition or other emergency situation, including a preference to initiate their personal evacuation plan in advance of community warnings.
- 1.1.3 This JPR constitutes the JSC Emergency Preparedness Program Plan and uses the DHS/FEMA format to address unique JSC emergency preparedness concerns. This JPR shall be reviewed at least annually and updated as required.
- 1.1.4 JSC and Component Facilities shall develop multi-hazard functional emergency preparedness program plans using the FEMA format. Component Facilities will review plans annually and update them as required. Component Facilities will forward a copy of these plans, including site maps, to the JSC Office of Emergency Management.

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1.1.5 When not precluded by greater mission requirements, the National Response Framework (NRF) requires NASA to provide support from internal resources. Such requests when requested of JSC will be forwarded or referred to NASA Headquarters, Office of Security and Program Protection (OSPP).

1.2 Hazard Vulnerability Analysis

JSC faces a number of threats from both natural and technological hazards. Several of these threats have the potential to cause severe or long-term disruption of JSC operations, while others can cause the disruption of specific operations or create site-wide emergencies demanding response. While no amount of preparation can anticipate every possible emergency scenario, the purpose of this section is to identify and describe the most likely threats that face JSC, and their potential primary and secondary impacts. The Hazard/Threat Identification Analysis (Figure 1) provides a quick reference to these hazards and their potential impacts, some of which is covered in more detail in this section. In determining JSC's vulnerability to each hazard, a vulnerability rating of low-impact, emergency, or disaster is assigned.

1.3 Assumptions

- a. Any of the incidents identified in the vulnerability analysis may cause large numbers of casualties, great loss of property, or degradation of the NASA mission.
- b. JSC has continuous potential exposure to known hazards, as well as other hazards that may develop in the future.
- c. Outside assistance will be available for emergencies affecting JSC, although JSC is prepared to carry out initial disaster response and short-term actions on an independent basis.
- d. National emergencies or disasters that may affect JSC can occur at any time. For some events, such as hurricanes or flooding, dissemination of warning and increased readiness measures may be possible. Other events, such as earthquakes or terrorist attacks, would likely come without warning and will require a rapid response based on in-place capabilities and resources.
- e. Senior JSC management officials recognize their responsibilities for the safety and well-being of employees and the public and will assume their responsibilities in the implementation of the JSC Emergency Preparedness Program Plan.
- f. Proper mitigation actions, such as floodplain management and fire inspections, can prevent or reduce disaster related losses. Detailed emergency planning, training of emergency responders and other personnel, and conducting periodic emergency drills and exercises can improve the Center's readiness to deal with emergency situations.
- g. Normal administrative policies and procedures might not be adequate during emergencies.

2.0 CONCEPT OF OPERATIONS

2.0.1 To achieve the Center's emergency preparedness objectives, JSC has organized an emergency management program that is both integrated (employs the resources of government and JSC contractors) and comprehensive (addresses mitigation, preparedness, response and recovery).

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This plan is one element of the Center's preparedness activities and is based on an All-Hazard approach to emergency planning. It addresses general functions that may need to be performed during <u>any</u> emergency situation and includes hazard-specific plans for specific types of incidents.

- 2.0.2 The situations addressed in this plan are those in which the actions of different organizations must be coordinated in an emergency to protect lives, the environment, property and to restore normal operations. This major effort differs from the emergencies handled on a daily basis by local fire, security, public works, and medical services personnel.
- 2.0.3 Directorates and offices tasked in this plan are expected to develop and keep current Standard Operating Procedures (SOP) that describe how emergency tasks will be performed. Directorates and offices are responsible for ensuring the training and equipment necessary for an appropriate response are in place. See Section 10, Training, in this document and Annex S, Training, for additional details.
- 2.0.4 NASA JSC has adopted the National Incident Management System (NIMS) in accordance with HSPD-5. JSC's adoption of NIMS will provide a consistent approach to the effective management of situations involving natural or man-made disasters or terrorism. NIMS allows JSC to integrate internal response resources using a set of standardized organizational structures designed to improve interoperability between all levels of government, private sector and non-governmental organizations.
- 2.0.5 This plan, in accordance with the NRF, is an integral part of the national effort to prevent and reduce America's vulnerability to terrorism, major disasters and other emergencies, minimize damage and recover from attacks and other emergencies that may occur. In the event of an incident of National Significance, as defined in HSPD-5, JSC will integrate all operations with all levels of government, private sector and nongovernmental organizations through the use of NRF coordinating structures, processes and protocols.

2.1 Operational Guidance

- 2.1.1 JSC will employ NIMS in all operations, which will provide a standardized framework that facilitates emergency operations in all phases of emergency management. Attachment D provides further details on NIMS.
- 2.1.2 Initial Response. JSC emergency responders are likely to be the first on the scene of an emergency situation. They will normally take charge and remain in charge of the incident until it is resolved or others who have legal authority to do so assume responsibility. JSC first responders will seek guidance and direction from local officials and technical assistance from other qualified levels of government and industry where appropriate.
- 2.1.3 Implementation of the Incident Command System (ICS). The first JSC emergency responder to arrive at the scene of an emergency situation will implement the ICS and serve as the (Incident Commander (IC) until relieved by a more senior or more qualified individual. The IC will establish an Incident Command Post (ICP) and assess the situation, identify response resources required and direct the on-scene response from the ICP.
- 2.1.4 For some types of emergency situations, a specific incident scene may not exist in the initial response phase and the EOC may accomplish initial response actions, such as mobilizing personnel and equipment and issuing precautionary warning to employees. JSC will use internal resources to the extent possible, all of which meet the requirements for resource management in accordance with

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NIMS, to respond to emergency situations, purchase supplies and equipment if necessary, and request assistance when JSC resources are insufficient or inappropriate. When additional resources are required, JSC will:

- a. Summon those resources available pursuant to mutual-aid agreements. See Attachment E Summary of Mutual-Aid/Interlocal Agreements to this plan, which summarizes the local agreements and identifies the officials authorized to request those resources.
- b. When external agencies respond to an emergency situation within JSC's jurisdiction, they are expected to conform to the guidance and direction provided by the JSC IC, which will be in accordance with NIMS. Conversely, JSC resources tasked to respond to an emergency situation beyond JSC's jurisdiction, including other NASA field centers, in support of an external emergency will conform to the guidance and direction of the local, unified or area Incident Commander.

2.2 Incident Command System (ICS)

- 2.2.1 JSC has adopted ICS, an integral part of NIMS, in managing emergencies. ICS is both a strategy and a set of organizational arrangements for directing and controlling field operations. It is designed to effectively integrate resources from different agencies into a temporary emergency organization at an incident site that can expand and contract with the magnitude of the incident and resources on hand. A summary of ICS is provided in Attachment D.
- 2.2.2 The Incident Commander is responsible for carrying out the ICS function of command managing the incident. The four other major management activities that form the basis of ICS are operations, planning, logistics and finance/administration. For small-scale incidents, the IC and one or two individuals may perform all of these functions. For larger incidents, a number of individuals from different departments or agencies may be assigned to separate staff sections charged with those functions.
- 2.2.3 An IC using response resources from one or two departments or agencies can handle the majority of emergency situations. Departments or agencies participating in this type of incident response will normally obtain support through their own department or agency. In emergency situations where other jurisdictions or the state or federal government are providing significant response resources or technical assistance, it is generally desirable to transition from the normal ICS structure to a unified or area command structure. This arrangement helps to ensure that all participating agencies are involved in developing objectives and strategies to deal with the emergency. Attachment D provides additional information on Unified and Area Commands.

2.3 ICS - EOC Interface

For major emergencies and disasters, the EOC will be activated. When the EOC is activated, it is essential to establish a division of responsibilities between the ICP and the EOC. A general division of responsibilities is outlined below. It is essential that a precise division of responsibilities be determined for specific emergency operations.

- 2.3.1 The IC is generally responsible for field operations, including:
 - a. Isolating the scene.

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- b. Directing and controlling the on-scene response to the emergency situation and managing the emergency resources committed there.
- c. Warning employees in the area of the incident and providing emergency instructions to them.
- d. Determining and implementing protective measures (evacuation or in-place sheltering) for employees in the immediate area of the incident and for emergency responders at the scene.
- e. Implementing traffic control arrangements in and around the incident scene.
- f. Requesting additional resources from the EOC.
- 2.3.2 The EOC is generally responsible for:
 - a. Providing resource support for the incident command operations.
 - b. Issuing community-wide warnings.
 - c. Issuing instructions and providing information to all employees.
 - d. Organizing and implementing large-scale evacuation.
 - e. Organizing and implementing shelter and mass arrangements for evacuees.
 - f. Coordinating traffic control for large-scale evacuations.
 - g. Requesting assistance from the state and other external sources.

2.4 State, Federal and Other Assistance

- 2.4.1 When local resources are inadequate to deal with an emergency situation, civilian authorities will request assistance from the state. Community emergency management officials and emergency operating plans include protocols for requesting assistance through state and federal channels to supplement local resources. JSC, as a neighbor to some local communities, could be asked for assistance with or without an official mutual-aid agreement. In the event local authorities request assistance from JSC for emergency response or an event of national significance, the Director, Center Operations Directorate, is designated as the appropriate authority at JSC to respond to such requests. Such assistance may take the form of equipment, supplies, personnel or other available resources. Every reasonable effort should be made to anticipate the need for agreements or understandings in advance of an emergency whose favorable outcome could be influenced by such preplanning. All agreements will be entered into by duly authorized officials and will be formalized in writing whenever possible. Each office, directorate, or facility is responsible for the activities conducted within its respective jurisdiction, including the preparation and coordination of functional *Annexes*, hazard-specific *Appendixes*, support arrangements, and *Mutual-Aid Agreements* associated with this *Plan*.
- 2.4.2 For emergencies and disasters for which a presidential declaration has been issued, federal agencies, including JSC, may be mobilized to provide assistance to state and local governments. The NRP describes the policies, planning assumptions, concept of operations and responsibilities of designated federal agencies for various response and recovery functions. The Nuclear/Radiological Incident Annex of the NRP addresses the federal response to major incidents involving radioactive materials.
- 2.4.3 The NRP applies to Stafford and non-Stafford Act incidents and is designed to accommodate not only actual incidents, but also the threat of incidents. Response by JSC to support local or NRP

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emergencies qualifies the Center for reimbursement of expenses under the Stafford Act. Therefore, whenever JSC employees or resources respond to or are assigned to support community emergencies, all associated costs will be documented and reported through the JSC Office of Emergency Management for coordination as well as potential reimbursement.

2.5 Office of Emergency Management

The JSC Office of Emergency Management (OEM) will respond to national emergencies and major natural or technological disasters, as requested by NASA Headquarters, OSPP.

2.6 JSC Component Facilities

Each JSC Component Facility shall be prepared to respond to local emergencies and major natural or technological disasters within their confines or at other NASA Centers as requested by NASA Headquarters, OSPP, and to support the appropriate tasking per the NRF.

2.7 Relationships between JSC Component Facilities

The JSC Emergency Preparedness Program Planning Group is responsible for recommending modifications to the JSC Emergency Preparedness Plan. This group consists of Component Facility Emergency Preparedness Coordinators (EPC) and representatives from designated JSC organizations and program offices. Each JSC Component Facility is responsible for its own emergency plan(s). The JSC OEM will coordinate planning and support between JSC Component Facilities.

2.8 Minimum Requirements for Exercising Emergency Plans

The minimum requirements for exercising emergency plans are as follows:

- a. Annual tabletop exercise at the Center or Component Facility level.
- Annual functional exercise (single scenario) at the Center or Component Facility level.
- c. Biennial functional Agency wide exercises (in conjunction with a Center exercise or a Federal emergency exercise as required by the NRF). In the event of an actual emergency, the response may be counted as a fulfillment of the required annual functional exercise.

2.9 Direction and Control

- 2.9.1 The Chief, Protective Services Division (PSD), is responsible for the overall management of the NASA Emergency Preparedness Program. Each Component Facility shall ensure development of the portion of the plan applicable to the mission and needs of the Center and its Component Facilities.
- 2.9.2 When notified of a JSC or Component Facility emergency, the OEM will activate and operate the JSC EOC. When notified of an emergency at another NASA Center or requested by NASA Headquarters, OSPP, the OEM will notify the Chief, PSD, and Director, Center Operations, for authorization to activate the JSC EOC.
- 2.9.3 Requests for support by DHS/FEMA under the NRF will be forwarded to OSPP, NASA Headquarters. Requests from local officials for JSC resources in support of an emergency will be referred to the Director, Center Operations. Component Facilities will follow the direction of senior management at their facility or refer the request to JSC or OSPP, NASA Headquarters, as appropriate.

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- 2.9.4 Requests for JSC resources beyond the capability of JSC or the local Component Facility shall be directed through the Director, Center Operations at JSC.
- 2.9.5 Upon notification of a disaster, the JSC Emergency Preparedness Coordinator, as requested, will gather information and coordinate appropriate requests for resources or support.
- 2.9.6 JSC support to responses may be required, such as: public affairs, legal, communications, facilities, occupational health, safety, logistics, transportation, security, personnel, fire services, environmental management, and the Center Operations Directorate for the Component Facilities, and other support deemed as required.

2.10 State of Emergency Declaration

After a major natural or man-made disaster, local civil authorities may declare a state of emergency that impacts JSC employees or operations. The JSC OEM will coordinate with local, State, and Federal agencies and notify OSPP, NASA Headquarters. The JSC EOC will be activated as requested by OSPP, NASA Headquarters or at the direction of JSC management.

3.0 PHASES OF EMERGENCY MANAGEMENT

3.1 Mitigation

Mitigation activities are those that prevent the occurrence of an emergency or reduce the Center's vulnerability in ways that minimize the adverse impact through risk assessment and prevention measures. Activities or actions that may serve to mitigate include, but are not limited to, the following:

- a. Identification of Center critical missions, services, and facilities with emphasis on preservation of these resources.
- b. Use and application of current Federal regulations, NASA regulations, and State or local codes where applicable. (Examples include 42 U.S.C. 11001 to 11050, the Emergency Planning and Community Right-to-Know Act of 1986; 29 CFR 1910.38, "Employee emergency plans and fire prevention plans"; 29 CFR 1910.120, "Hazardous waste operations and emergency response"; 49 CFR Part 130, "Oil spill prevention and response plans"; 49 CFR Subchapter C, "Hazardous Materials Regulations," Parts 171 to 180; National Fire Protection Association (NFPA) National Fire Code (NFC); and local building codes.).
- c. Development, installation, and exercise of alert/warning systems.
- d. Protection and strengthening of existing facilities. (Examples include, but are not limited to, high wind resistance, securing loose objects, and protection from high water, flying glass, and other debris.)
- e. Long-term master planning that includes facility strengthening in the initial design and/or sighting of vulnerable facilities in more secure locations.

3.2 Planning

JSC has established preparedness activities, programs, plans, and systems to ensure readiness and to enhance responses to an emergency or disaster. To achieve this goal, each JSC Component

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Facility, organization, and program office with emergency management responsibilities shall develop or contribute to plans and procedures that support the JSC EPP such as functional annexes, appendices, and hazard-specific appendices. JSC and Component Facilities will conduct a thorough vulnerability analysis to identify potential hazards/threats (Figure 1). JSC emergency preparedness programs will include a mitigation component to reduce or eliminate identified risks based on their vulnerability analysis.

Possible Hazard	Exposure	Probability	Vulnerability	Worst Case
Sabotage - I/T attack	High	High	Emergency	Loss of service; system integrity
Hurricane – minimal	High	High	Emergency	Cat 1 hurricane winds at JSC
Hurricane – moderate	High	Medium	Emergency	Cat 2 hurricane winds at JSC
Flood	High	Medium	Emergency	Loss of tunnel
Possible Hazard	Exposure	Probability	Vulnerability	Worst Case
Hurricane – major	High	Low	Disaster	High Cat 2 hurricane winds and above at JSC
Perimeter pipeline accident	High	Low	Emergency	Toxic chemical release with winds
Tidal surge	Medium	Medium	Emergency	Disaster if Category 4 storm
Highway transportation/ shipping accident	Medium	Medium	Emergency	Disaster if involving toxic chemical release
Drought	Medium	Medium	Low Impact	Water rationing; broken water pipes
Fire (grass, trash, smoking, etc.)	Medium	Low	Emergency	Loss of facility
Hazardous materials release	Medium	Low	Emergency	Toxic chemical release with winds
Industrial accident	Medium	Low	Emergency	
Inert gas spill (large)	Medium	Low	Emergency	Valve line failure w/no means of isolating.
JSC aircraft mishap	Medium	Low	Emergency	
Radiological incident	Medium	Low	Emergency	
Sabotage Intentional damage	Medium	Low	Emergency	Utility disruption
Terrorism (i.e., bomb threat, WMD, assault)	Medium	Low	Emergency	Loss of facility
Tornado	Medium	Low	Emergency	Disaster if multistory building occupied
Utility outage/failure (power, water, gas, etc.)	Medium	Low	Emergency	Loss of use of utility

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Possible Hazard	Exposure	Probability	Vulnerability	Worst Case
Water supply contamination	Medium	Low	Emergency	Illness; Center closure
Winter storm	Medium	Low	Emergency	With Ice
Workplace Violence	Medium	Low	Emergency	Loss of life
Airplane crash at JSC	Low	Low	Emergency	Disaster if multistory building occupied
Attack (nuclear, chemical, biological, conventional)	Low	Low	Emergency	Loss of facility
Building fire	Low	Low	Emergency	
Civil disorder	Low	Low	Emergency	Access restrictions
Disease	Low	Low	Emergency	Pandemic
Earthquake	Low	Low	Emergency	Disaster if >5 on the Richter scale
Munitions explosion	Low	Low	Emergency	
National Incident	Low	Low	Emergency	Access restrictions
Structural collapse	Low	Low	Emergency	Disaster if multistory building occupied
Subsidence/Liquefaction	Low	Low	Emergency	
Tsunami	Low	Low	Emergency	

Figure 1- Hazard/Threat Identification Analysis

3.3 Response

Certain emergency response procedures require unique and specialized plans and actions that can be anticipated and preplanned to support the overall response effort. In this regard, each JSC Emergency Preparedness Program Plan shall contain procedures and checklists to support specific emergency response activities. These should include, but not be limited to, the following:

- a. Activation of Center emergency response teams.
- b. Activation of the Center Emergency Operations Center (EOC) and alternate EOC, if required.
- c. Exercises and drills.
- d. Use of the National Incident Management System (NIMS).
- e. Coordination with local, state, and Federal agencies.
- f. Recall and notification of essential personnel.
- g. Damage assessment.

3.4 Recovery

- a. Ensure the short-and long-term continuance of JSC or critical missions. This should also include the specific JSC contracts needed to sustain those missions.
- b. Provide data to include the following:

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- 1. Mitigation data.
- Lessons learned.
- 3. After-action reports.
- 4. Damage assessment (short term).
- 5. Recovery actions (long term).
- 6. Resource shortfalls and impacts.
- c. Institute agreements with governments and other Federal, local and state agencies, and contractors.
- d. Identify fixed, mobile, and transportable telecommunications assets.
- e. Identify local and backup power generating and distribution facilities.

4.0 CONTINUITY OF CENTER OPERATIONS

The JSC Continuity of Operations (COOP) plans are in development in accordance with HSPD 20, "National Continuity Policy" and NASA policy. On completion, JSC COOP plans will be written to supplement the JSC EPP.

5.0 RESPONSIBILITIES

5.1 All JSC Offices

All JSC Offices shall:

- a. Support the JSC Emergency Preparedness Program Plan and the NRF as required by NPD 8710.1, Emergency Preparedness Program.
- b. Support Executive Orders 12148 and 12656 and coordinate with Federal departments and agencies as directed by NASA Headquarters to prepare for the use, maintenance, and development of technologically advanced aerospace and aeronautical-related systems, equipment, and methodologies applicable to national security emergencies.
- c. Provide management with the means and the staffing to make the Emergency Preparedness Program Plan operative (i.e., place priority and responsibilities on Center Offices and Component Facilities to ensure ability to respond to local, national, and international emergencies).
- d. Ensure that data/archives record preservation plans are managed in accordance with JPR 1440.3, JSC Files and Records Management Procedures (e.g., collect and store all important records, such as personnel, pay, mission program data, facility engineering design plans/drawings) and provide for assistance to Component Facilities in post-disaster recovery of vital records. This activity will be managed by the Chief Information Officer.
- e. Ensure that all employees with direct emergency response duties are properly trained to meet Federal and Agency requirements related to the emergency preparedness authorities and

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directives listed in Appendix A and subsequent Presidential Executive Orders or Directives. Online systems may be used for training and documenting training but emergency plans and checklists may not be posted online unless the systems are protected by firewalls. Plans and checklists are to be considered "Controlled Unclassified Information" and not placed on open systems.

5.2 Center Director

The JSC Center Director shall:

- a. Ensure the Center Emergency Preparedness Program is visible within the organization.
- b. Provide a single point of contact for emergency preparedness to develop and coordinate the Center Emergency Preparedness Program Plan and conduct exercises.
- c. Establish an EOC and an alternate EOC.
- d. Ensure that an emergency response capability exists.

5.3 Center Operations Directorate

The Director, Center Operations, shall:

- a. Support the Chief, Protective Services Division, who is designated the responsible official for national security emergency preparedness program planning and coordination in support of E.O. 12656 and for writing JWI 1040.16, JSC National Security Emergency Plan (NSEP) (Annex L).
- b. Provide resource management advice and guidance. Establish and maintain resource lists including local data and telecommunications networks.
- c, Ensure emergency relocation of designated senior staff.
- d. Conduct program reviews to:
 - Oversee the emergency preparedness program budget to define budget requirements for Center programs and ensure that appropriate resources, personnel, and funding are sufficient for the Center emergency preparedness program
 - Ensure all offices are involved in the Center Emergency Preparedness Program development.
 - 3) Ensure local hazards/threat analysis specific to the Center are reviewed annually and updated as appropriate.
 - 4) Ensure annual reviews of emergency preparedness and emergency response procedures are current and copies are provided, along with program status reports, NASA Headquarters, OSPP.
 - 5) Ensure all elements of the Center emergency preparedness program (personnel, facilities, equipment, response teams, etc.) are capable of performing assigned tasks.
- e. Assist the Protective Services Division in the identification of emergency response and recovery capabilities.

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- f. Provide Center management of physical security assets.
- g. Coordinate post-event Center recovery and assessment.
- h. Support the JSC Emergency Preparedness Program with respect to environmental regulatory compliance issues. Advise and keep Component Facilities aware of current and pending environmental regulations regarding emergency preparedness. Establish and maintain environmental contact lists for various types of hazardous materials and waste spills.
- i. Maintain the critical infrastructure in the event of an emergency, as prescribed by Presidential Decision Directive (PDD) 63 using the NASA Critical Infrastructure Protection Plan (CIPP).
- j. Coordinate the planning and implementation of the Critical Infrastructure Protection Plan with the Protective Services Division.
- k. Support the plan, maintaining the infrastructure in the event of an emergency, as part of the role of the JSC Chief Infrastructure Assurance Officer.
- I. Support the NASA Emergency Preparedness Program and the NRF by responding to specific tasks as assigned from OSPP NASA Headquarters.
- m. Author the Center Emergency Preparedness Program Plan.
- n. Design and implement the plan for notification and alert of JSC and NASA officials during nonnormal work hours.
- o. Design and implement the JSC Contingency Relocation Plan to provide for the relocation of designated portions of JSC senior staff in the event that JSC facilities are no longer usable.
- p. Exercise the JSC relocation plan.

5.4 JSC Emergency Preparedness Coordinator

The JSC Emergency Preparedness Coordinator shall:

- a. Define emergency preparedness management structure, i.e., Center to Headquarters (flow chart).
- b. Identify minimal Center emergency response capabilities.
- c. Coordinate support with local agencies.
- d. Endorse the use of the Incident Command System (ICS) for emergency responses throughout JSC.
- f. Activate the EOC as needed.
- g. Monitor NASA Center agreements and plans as related to emergency preparedness.
- h. Develop a Center Emergency Preparedness Program that complies with Federal and Agency requirements.
- i. Provide emergency preparedness and response advice to the Chief, PSD and Director, Center Operations.
- j. Provide guidance to Component Facilities for operation of the Emergency Preparedness Program.

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- k. Forward requests for assistance from other NASA Centers, DHS/FEMA, and other Federal, state or local agencies to Director, Center Operations or OSPP, NASA Headquarters.
- I. Provide advocacy for budget items.
- m. Determine the need for, and if necessary advocate, the acquisition of specialized computer software to develop Emergency Preparedness Program Plans, annexes and exercises.
- n. Conduct reviews of Component Facility Emergency Preparedness Program Plans at least biennially.
- o. Participate in annual NASA Emergency Preparedness Coordinator meetings.
- p. Provide or recommend training for designated ERT members and other employees with direct emergency response duties, including EOC positions.
- q. Conduct after-action reviews of the adequacy of an emergency response to incidents and exercises, and identify lessons learned to be forwarded to the Center Lessons Learned database.
- r. Develop and maintain JWI 1040.17, "Annex L Resource Management" (see paragraph 6.8, this JWI). Review the JWI annually.

5.5 Office of the Chief Financial Officer

The Chief Financial Officer shall:

- a. Provide funding as approved in support of a viable Emergency Preparedness Program.
- b. Assist and advise Emergency Preparedness Program budget development.
- c. Provide a process that will account for emergency preparedness expenditures.
- d. Appoint a representative, trained in accordance with NIMS, to support the Finance / Administration Section Chief when necessary.

5.6 Human Resources Office

The Human Resources Office shall:

- a. Develop response procedures to determine personnel leave or personnel pay policies in the event of Center loss or closure.
- b. Provide the training and education budget for JSC emergency preparedness personnel.
- c. Appoint a representative, trained in accordance with NIMS, to support the Finance / Administration Section Chief when necessary.
- d. Identify personnel and teams identified as resources for emergency response and recovery in an appendix to JWI 1040.17, "Annex L Resource Management." The appendix will be reviewed annually.

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5.7 Office of Chief Counsel

The Office of Chief Counsel shall:

- a. Provide legal advice on compliance with Federal, state and local laws as applicable to emergency preparedness.
- b. Provide legal advice on JSC Memoranda of Agreement (MOA's) and Memoranda of Understanding (MOU's) with Federal, state or local agencies.
- c. Provide a legal liaison with other Federal agencies assigned NRF responsibilities.
- d. Provide legal review of emergency preparedness program plans and documents, including the NSEP Plan.
- e. Appoint a representative, trained in accordance with NIMS, to serve in an activated EOC when necessary.

5.8 Office of Procurement

The Office of Procurement shall:

- a. Authorize and make available all lawful and otherwise permissible procurement techniques appropriate to the emergency. For example, a waiver to the requirements for synopsis, competition, solicitation review, etc., may be used when warranted.
- b. Appoint a representative, trained in accordance with NIMS, to serve as Finance / Administration Section Chief when necessary.

5.9 Safety and Mission Assurance Directorate

The Office of Safety and Mission Assurance shall:

- a. Be responsible for all matters relating to employee safety, including the health and safety of emergency responder personnel, assessment and communication of hazardous and unsafe situations, corrects unsafe acts or conditions, and maintains awareness of active and developing situations.
- Appoint a representative, trained in accordance with NIMS, to serve in an activated EOC when necessary.
- b. Ensure *JWI 1040.10*, *Fire Prevention and Control* annex and *JWI 1040.23*, *Fire & Explosion Plan*, and supporting safety and fire prevention and control SOPs and checklists are prepared, maintained and reviewed annually.

5.10 External Relations Office

The External Relations Office shall perform the following:

- a. Function as the single Center spokesperson to all external resources/personnel.
- b. Act as liaison with the media to accomplish the following:
 - 1) Provide pre-event coordination, if possible.
 - 2) Establish and operate an emergency news center.

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- 3) Provide timely and accurate information to the news media.
- 4) Provide escorts as required; coordinate press releases with the JSC Incident Commander and the Center Director.
- 5) Coordinate procedures for contact to national media agencies.
- 6) Prepare post-event articles and press releases.
- c. Provide coordination for the utilization of the JSC Emergency Broadcast System.
- d. Provide public affairs support for emergency preparedness awareness.
- e. Provide public affairs support to the Joint Information Center, when activated.
- f. Appoint representatives, trained in accordance with NIMS, to serve as the primary and alternate PAO members of the JSC Emergency Response Team (ERT), one of which will report to the JSC EOC when it is activated.
- g. Ensure the *JWI 1040.13*, *Emergency Public Information* annex and supporting SOPs and checklists are prepared, maintained and reviewed annually.

5.11 Space Life Science Directorate (SLSD)

The Space Life Science Directorate (SLSD) shall perform the following:

- a. Support emergency planning efforts, including preservation of mission essential resources.
- b. Establish minimum levels for the effective operation of sensitive SLSD systems during emergency operations or contingencies.
- c. Provide support to JSC and Component Facilities in performing emergency preparedness.
- d. Identify and review annually the resources available to support the JSC Emergency Preparedness Program.
- f. Appoint three representatives, (one primary and two alternates), trained in accordance with NIMS, to serve as SLSD members of the JSC Emergency Response Team (ERT), one of which will report to the JSC EOC when it is activated.
- g. Provide support to Centers in emergency preparation matters related to medical, occupational, and environmental health.
- h. Provide training as needed in medical, occupational, and environmental health topics pertinent to emergency response.
- i. Review investigative reports and lessons learned relative to emergencies with medical/health implications.
- j. Provide medical /health response, follow-up surveillance and support to recognize, evaluate and control potential health hazards.
- k. Provide emergency response-related support through occupational health programs, including the following:
 - 1) Hazard communication.

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- 2) Respiratory protection.
- 3) Provision of toxicological and medical information.
- 4) Material Safety Data Sheets (MSDS).
- 5) Medical response/follow-up surveillance of exposed personnel.
- 6) Public Access to Defibrillation (PAD)
- 7) Recognition, evaluation and control of potential health hazards (Hazard Communication (HAZCOM), Lead Hazard Awareness, Blood-Borne Pathogens, Personal Protective Equipment (PPE), Respirator Fit Test and Training, Hearing Conservation, Ionizing Radiation, Asbestos Worker Training, Cardio-Pulmonary Resuscitation (CPR), Automated External Defibrillator (AED), First Aid, etc.).
- 8) Provision of training in pertinent topics (respiratory protection, lead mitigation, ventilation, blood-borne pathogens, emergency medical care, indoor air quality, etc.).
- 9) Distribution of alerts regarding disasters and preventive/remedial measures.
- 10) Critical incident stress syndrome and other emotional/mental health training and counseling for disaster workers and victims as required.
- I. Ensure JWI 1040.12, Medical/Occupational Health Services annex and supporting SOPs and checklists are prepared, maintained and reviewed annually.

5.12 White Sands Test Facility (WSTF)

The Manager, WSTF, shall:

- a. Direct the overall preparedness program for the facility.
- b. Decide emergency policy.
- c. Designate an EPC to serve as staff advisor on emergency matters.
- d. Inform the JSC Director, facility employees and contractors, news media, and the community of the situation, with the assistance of the WSTF Public Affairs Officer.
- e. Request outside assistance when necessary from other jurisdictions in accordance with existing Mutual-Aid Agreements.
- f. Support the overall preparedness program in terms of its budgetary and organizational requirements.
- g. Implement the policies and decisions of the JSC Director.
- h. Direct long-range recovery after a disaster.
- i. Initiate and monitor the increased readiness actions among facility services when disaster threatens.
- j. Ensure *Attachment F* (*WSTF Emergency Preparedness Plan*) to this *Plan* and the supporting SOPs are prepared, maintained, and reviewed annually.

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5.13 Sonny Carter Training Facility (SCTF)

The Director, Mission Operations Directorate, shall designate and certify an individual to serve as SCTF EPC, who shall:

- a. Direct the overall preparedness program for SCTF.
- b. Decide emergency policy for SCTF.
- c. Inform the JSC Director, facility employees and contractors, news media, and the community of the situation (with the assistance of the JSC External Relations Office).
- d. Request outside assistance when necessary from other jurisdictions in accordance with existing *Mutual-Aid Agreements*.
- e. Support the overall preparedness program in terms of its budgetary and organizational requirements.
- f. Implement the policies and decisions of the JSC Director.
- g. Direct long-range recovery after a disaster.
- h. Coordinate damage assessment and repairs with the JSC Recovery Manager or Chief, FMOD.
- i. Initiate and monitor the increased readiness actions among facility services when disaster threatens.
- j. Ensure Attachment G (SCTF Emergency Preparedness Plan) to this Plan and the supporting SOPs are prepared, maintained, and reviewed annually.

5.14 NASA Facilities at Ellington Field

The Chief, Aircraft Operations Division, shall designate and certify an individual to serve as Ellington Field (EFD) Emergency Preparedness Coordinator who shall:

- a. Direct the overall preparedness program for EFD.
- b. Decide emergency policy for EFD.
- c. Inform the JSC Director, facility employees and contractors, news media, and the community of the situation (with the assistance of the JSC External Relations Office).
- d. Request outside assistance when necessary from other jurisdictions in accordance with existing *Mutual-Aid Agreements*.
- e. Support the overall preparedness program in terms of its budgetary and organizational requirements.
- f. Implement the emergency preparedness policies and decisions of the JSC Director.
- g. Direct long-range recovery after a disaster.
- h. Coordinate emergency response support between JSC and Ellington Field emergency units.
- Initiate and monitor the increased readiness actions among facility services when disaster threatens.
- j. Identify, prepare, and maintain *Mutual-Aid Agreements* with outside jurisdictions as required.

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- k. Coordinate damage assessment and repairs with the JSC Recovery Manager or Chief, FMOD.
- Prepare, implement and maintain Appendix 5 (JSC Aircraft Mishap Plan) to this Plan and the supporting SOPs.
- m. Ensure *Attachment H* (EFD *Emergency Preparedness Plan*) to this *Plan* and the supporting SOPs are prepared, maintained, and reviewed annually.

6.0 EMERGENCY SERVICES RESPONSIBILITIES

6.1 Incident Commander (IC)

The IC shall:

- a. Manage emergency response resources and operations at the Incident Command Post to resolve the emergency situation.
- b. Determine and implement required protective actions for response personnel and employees at an incident site.
- c. Determine when emergency operations are to be terminated and the incident scene is safe for resumption of normal operations and inform affected management.

6.2 Warning

Primary responsibility for this function is assigned to the JSC Security Office with primary operational capability in the Emergency Dispatch Center (EDC). The JSC Security Office shall:

- a. Ensure *JWI 1040.5, "Annex A Warning"* to this *Plan* and the supporting SOPs are prepared, maintained, and reviewed annually.
- b. Emergency warning tasks to be performed include:
 - 1) Receiving information on emergency situations.
 - 2) Alerting key Center officials of emergency situations.
 - 3) Disseminating warning information and instructions to employees through available warning systems.
 - 4) Disseminating warning and instructions to special facilities such as the JSC Child Care Facility.

6.3 Communications

Primary responsibility for this function is assigned to the JSC Communications Officer by the Chief, Communications Branch. The JSC Communications Officer shall:

- a. Ensure *JWI 1040.6, "Annex* B Communic*ations"* to this *Plan* and the supporting SOPs are prepared, maintained, and reviewed annually.
- b. Identify the communications systems available internally and in the local area and determine the connectivity of those systems and assure their interoperability.

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- c. Develop plans and procedures for coordinated use of the various communications systems available within the Center and neighboring jurisdictions during emergencies.
- d. Develop and maintain a communications resources inventory.
- e. Determine and implement means of augmenting communications during emergencies, including support by volunteer organizations.
- f. Provide Government Emergency Telephone System (GETS) cards from NASA HQ based on approval from the JSC Office of Emergency Management.
- g. Coordinate with the JSC Radio Communications Specialist to assure the standardization of emergency communications for personnel executing operational decisions responding to internal and external emergency incidents.

6.4 Radiological Protection

Primary responsibility for this function is assigned to the JSC Radiological Officer by the Chief, Clinical Services Branch. The JSC Radiological Officer shall:

- a. Ensure *JWI 1040.8, "Annex* D *Radiological Protection"* to this *Plan* and the supporting SOPs are prepared, maintained, and reviewed annually. Emergency tasks to be performed include:
- b. Maintaining an inventory of radiological equipment.
- c. Ensuring response forces include personnel with current training in radiological monitoring and decontamination.
- d. Responding to radiological incidents and terrorist incidents involving radiological materials.
- e. Notifying Agency, state and federal authorities of radiological incidents.
- f. Coordinating radiation monitoring throughout the Center.
- g. Providing monitoring services and advice at the scene of accidents involving radioactive materials.

6.5 Evacuation

Primary responsibility for this function is assigned to the JSC Emergency Preparedness Coordinator (EPC) by the Chief, OEM. The JSC EPC shall:

- a. Ensure *JWI 1040.9, "Annex* E *Evacuation"* to this *Plan* and the supporting SOPs are prepared, maintained, and reviewed annually. Emergency tasks to be performed include:
- b. Perform evacuation planning for known risk areas to include route selection and determination of traffic control requirements.
- c. Develop simplified planning procedures for ad hoc evacuations.
- d. Determine emergency public information requirements.
- e. Perform evacuation planning for special needs employees and facilities (health, medical and disabled requirements, JSC Child Care Center).

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6.6 Fire Prevention and Control

Primary responsibility for this function is assigned to the Chief, Safety and Test Operations Division (STOD) by the Director, Safety & Mission Assurance. The Chief, STOD shall:

- a. Ensure JWI 1040.9, "Annex F Fire Protection and Control" and JWI 1040.23, "Appendix 1 Fire and Explosion Plan" and the supporting SOPs are prepared, maintained, and reviewed annually. Emergency tasks to be performed include:
- b. Fire Prevention Activities.
- c. Fire Detection and control.
- d. Hazardous material and oil spill response.
- e. Terrorist incident response.
- f. Evacuation support.
- g. Coordination of search and rescue activities.
- h Post-incident reconnaissance and damage assessment for fire hazards.
- i Fire safety inspection of temporary shelters.
- j Prepare and maintain a fire resource inventory.
- k. Designate a safety liaison to provide direct support to responding search and rescue teams.
- I. Identify requirements for specialized JSC resources to support rescue operations.

6.7 Security

Primary responsibility for this function is assigned to the Chief, Security Office, who will prepare and maintain *JWI 1040.250, "Annex G Security"*, and *JWI 1040.11, "Appendix 3 Security Contingency Plan*", to this plan and supporting SOPs. JWI 1040.11 and JWI 1040.25 will be reviewed annually. Emergency tasks to be performed include:

- a. Provide security for JSC facilities for the protection of employees, government property and facilities, and ensure a safe workplace.
- b. Traffic control, including notification to neighboring law enforcement agencies to coordinate traffic control when the Center is to close and/or employees released.
- c. Protect crime scenes (including suspected terrorism scenes).
- d. Terrorist incident response.
- e. Provision of security for essential facilities, evacuated areas and shelters.
- f. Access control for damaged or contaminated areas.
- g. Warning support.
- h. Post-incident reconnaissance and damage assessment.
- i. Ensure a qualified security specialist is designated and certified to serve as the security representative on the JSC ERT.

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j. Prepare and maintain security resource inventory

6.8 Resource Management

Primary responsibility for this function is assigned to the JSC Emergency Preparedness Coordinator (EPC) by the Chief, OEM. The JSC EPC shall:

- a. Ensure *JWI 1040.17*, "Annex L Resource Management" to this *Plan* and the supporting SOPs are prepared, maintained, and reviewed annually. Emergency tasks to be performed include:
- b. Partner with functional organizations to identify resources (personnel, teams, facilities, equipment, and/or supplies) in databases and maintained to meet incident needs by JSC, neighboring or regional jurisdictions, or other NASA field centers.

6.9 Logistics

Primary responsibility for this function is assigned to the Chief, Logistics Division, who shall:

- a. Assure *JWI 1040.20, "Annex R Transportation"* to this *Plan* and the supporting SOPs are prepared, maintained, and reviewed annually.
- b. Identify supply, equipment, and materials as resources for emergency response and recovery in an appendix to JWI 1040.17, "Annex L Resource Management." The appendix will be reviewed annually.

6.10 Organizations and Program Offices:

Organizations and Program Offices shall ensure that all employees with direct emergency response duties are properly trained to meet Federal and Agency requirements related to the emergency preparedness authorities and directives listed in Appendix A and subsequent Presidential Executive Orders or Directives. Online systems may be used for training and documenting training but emergency plans and checklists may not be posted online unless the systems are protected by firewalls. Plans and checklists are to be considered "Sensitive But Unclassified" and not placed on open systems.

7.0 PROCEDURE

7.1 Actions by Phases of Emergency Management

This *Plan* follows an all-hazard approach and acknowledges that most responsibilities and functions performed during an emergency are not hazard-specific. Likewise, this *Plan* accounts for activities before, during and after emergency operations. Consequently, all phases of emergency management are addressed as shown below.

- 7.1.1. **Prevention** activities prevent the occurrence of an emergency. Prevention activities are intended to eliminate hazards or lessen the consequences of unavoidable hazards.
- 7.1.2 **Mitigation** activities reduce JSC's vulnerability by minimizing the adverse impact of a disaster. JSC will conduct mitigation activities as an integral part of the JSC emergency preparedness program. Mitigation is intended to reduce the probability of hazards causing an emergency situation or lessen the

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consequences of unavoidable hazards. Mitigation should be a pre-disaster activity, although mitigation may also occur in the aftermath of an emergency situation with the intent of avoiding repetition of the situation.

- 7.1.3. **Preparedness** activities will be conducted at JSC to develop the response capabilities needed in the event of an emergency. The preparedness activities included in the JSC emergency preparedness program are:
 - a. Providing emergency management equipment and facilities.
 - b. Emergency planning, including maintaining this plan, its annexes, and appropriate SOPs.
 - Conducting or arranging appropriate training for emergency responders, emergency management personnel, other local officials, and volunteer groups who provide assistance during emergencies.
 - d. Conducting periodic drills and exercises to test response plans and training.
- 7.1.4. **Response** to emergency situations will be effective and efficient. The focus of most of this plan and its annexes is on planning for the response to emergencies. Response operations are intended to resolve an emergency situation while minimizing casualties and property damage. Response activities include warning, emergency medical services, firefighting, security operations, evacuation, shelter and mass care, emergency public information, search and rescue, as well as other associated functions.
- 7.1.5. Recovery operations following a disaster involve both short-term and long-term efforts. Short-term recovery operations seek to assess initial damage and return vital systems to minimum operating levels. Long-term recovery focuses on restoring the Center to its normal state. Long-term recovery actions may continue for several months or years. The JSC recovery program is outlined in JWI 1040.17, Recovery Plan.

8.0 RECORDS

8.1 Record Keeping for Emergency Operations

- a. JSC and geographically separate facilities (EF, SCTF, WSTF) are responsible for establishing the administrative controls necessary to manage the expenditure of funds and to provide reasonable accountability and justification for expenditures made to support emergency operations within their respective facilities. This shall be done in accordance with established agency fiscal policies and standard cost accounting procedures and includes new contracts and modifications to existing contracts associated with expenditure of funds.
- b. Activity Logs. The Incident Command Post and the EOC shall maintain accurate logs recording key response activities, including:
 - 1) Activation or deactivation of emergency facilities.
 - 2) Emergency notifications to neighboring local governments and NASA HQ. Notifications to state and federal agencies will be consistent with agency policy and guidance from NASA HQ, based on the characteristics of the emergency or disaster.
 - 3) Significant changes in the emergency situation.

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- Major commitment of resources or requests for additional resources from external sources, including other NASA Centers.
- 5) Issuance of protective action recommendations to employees or the public.
- 6) Evacuations.
- 7) Casualties.
- 8) Containment or termination of the incident.
- c. Incident Costs. All JSC organizations and offices shall maintain records summarizing use of personnel, equipment and supplies during the response to day-to-day incidents to obtain an estimate of annual emergency response costs that can be used in preparing future organization or program office budgets.
- d. Emergency or Disaster Costs. For major emergencies or disasters, all organizations and program offices in the emergency response shall maintain detailed costs for emergency operations to include:
 - 1) Personnel costs, especially overtime costs
 - 2) Equipment operations costs
 - 3) Costs for leased or rented equipment
 - 4) Costs for contract services to support emergency operations
 - 5) Costs of specialized supplies expended for emergency operations
- e. These records may be used to recover costs from the responsible party or insurers or as a basis for requesting financial assistance for certain allowable response and recovery costs from NASA HQ or Congress.

8.2 Preservation of Records

In order to continue normal government operations following an emergency situation or disaster, vital records must be protected. These include legal documents as well as financial records. Vital records also consist of emergency operating records, such as emergency management plans. NPD 1440.6E, "NASA Records Management," establishes policy and responsibilities regarding the designation, maintenance, and protection of NASA-owned vital records. Procedures for carrying out these responsibilities are outlined in JPR 1440.3, "JSC Files and Records Management Procedures." To ensure that necessary records are protected against loss, directorates, program offices, laboratories, offices, and contractors with vital records are responsible for developing suitable written plans or procedures in accordance with JPR 1440.3. The JSC Vital Records Manager should be contacted for information on protection and preservation of vital official records.

8.3 Training

It will be the responsibility of each directorate, program office and contractors doing business with JSC to ensure that JSC employees, in accordance with the NIMS, possess the level of training, experience, credentialing, currency, physical and medical fitness, or capability for any positions they are tasked to fill. All JSC and component facility employees with a direct role in emergency management are

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required to complete NIMS and ICS online training as identified in the JSC NIMS Implementation Plan (published separately by OEM). Supervisors of employees with a direct role in emergency management are required to complete NIMS and ICS online training as well. Direct roles in emergency management are defined as primary and alternate members of the JSC ERT, Hurricane Rideout Team, and EOC positions identified in Annex N, Direction and Control, and Appendix 1, EOC Activation Notice.

8.4 Post Incident and Exercise Review

After Action Reports (AAR) generated from a review following the conclusion of a significant emergency event/incident or exercise will document input from all participants. An Improvement Plan will be developed based on the improvement opportunities identified and an individual, organization or program office will be assigned responsibility for resolving the action. A due date shall be established for each action.

9.0 PLAN DEVELOPMENT AND MAINTENANCE

9.1 Plan Development

The JSC Center Director is responsible for approving and transmitting this plan to NASA JSC and separate facilities at Ellington Field, SCTF, the El Paso Forward Operating Location and the WSTF. Separate emergency plans will be developed at each of the geographically separate JSC facilities to assure rapid and effective response to emergencies internally or until external resources arrive. JSC emergency plans will be coordinated with external entities to assure resources are coordinated and capable of operating in accordance with NIMS. The Chief, OEM will brief appropriate senior management and Center officials concerning their role in emergency management.

9.2 Distribution of Planning Documents

- a. The JSC OEM shall determine the distribution of this plan and its annexes. In general, copies of plans and annexes are available online within the JSC firewall at http://www6.jsc.nasa.gov/ja/js/js7/emepre.cfm to those individuals, organizations, program offices and contractors as tasked in this document. Electronic or hard copies of plans and annexes will be distributed to community partners, NASA HQ Office of Security Program Protection and agencies as tasked in this document.
- b. This emergency preparedness plan includes a distribution list (see the last page of this document) that indicates who receives copies of the plan and the various annexes to it. In general, individuals who receive annexes to the plan should also receive a copy of this plan, because the emergency preparedness plan describes the JSC emergency management organization and basic operational concepts.

9.3 Review

The Basic Plan and its annexes shall be reviewed annually by local officials. The JSC EPC will establish a schedule for annual review of planning documents by those tasked in them.

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9.4 Update

- a. This plan will be updated, as necessary, based on improvement opportunities identified during actual emergency situations and exercises and when changes in threat hazards, resources and capabilities or government structure occur. Approved changes will be incorporated into the *Plan* and all organizations and individuals identified as having responsibility for implementation will be notified. Revised pages will be dated and marked to show where changes have been made.
- b. The Basic Plan and its annexes must be revised or updated by a formal change at least every five years. Responsibility for revising or updating the Basic Plan is assigned to the JSC EPC. Responsibility for revising or updating the annexes to this plan is outlined in Section VI.B, Assignment of Responsibilities, as well as in each annex.
- c. Revised or updated planning documents will be provided to all organizations, program offices, contractors and individuals tasked in those documents.
- d. NASA HQ Office of Security and Program Protection has oversight of the agency emergency preparedness program and will review field center emergency management plans during periodic program assessments.

10.0 NEW CENTER DIRECTORS/DEPUTY CENTER DIRECTORS

The Chief, OEM will brief new officials on the *Plan* within 60 days after a new Center Director and/or a Deputy Center Director is appointed.

10.1 Drills/Exercises

Periodic drills and exercises will be conducted (no less than once per year) to ensure proper functioning of this *Plan*. Proper execution of the *Plan* during a legitimate emergency will have the effect of verifying the *Plan*'s functionality and will carry the same weight as a scheduled drill or exercise.

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ATTACHMENT A: ACRONYMS, TERMS, AND DEFINITIONS

Within this document, the following acronyms and terms are used. The table is arranged in alphabetical order by term. Each term may or may not have an acronym assigned to it.

ACRONYM	TERM	DEFINITION
AAR	After Action Report	
	Area Command (Unified Area Command)	An organization established (1) to oversee the management of multiple incidents that are each being managed by an Incident Command System (ICS) organization or (2) to oversee the management of large or multiple incidents to which several incident management teams have been assigned. Sets overall strategy and priorities, allocates critical resources according to priorities, ensures that incidents are properly managed, and ensures that objectives are met and strategies followed. Area Command becomes Unified Area Command when incidents are multi-jurisdictional.
	Catastrophic Incident	For the purposes of the NRF, this term is used to describe any natural or manmade occurrence that results in extraordinary levels of mass casualties, property damage, or disruptions that severely affect the population, infrastructure environment, economy, national morale, and/or government functions. An occurrence of this magnitude would result in sustained national impacts over prolonged periods of time, and would immediately overwhelm local and state capabilities. All catastrophic incidents are <i>Incidents of National Significance</i> .
CFR	Code of Federal Regulations	
CPAO	Community & Public Affairs Office	
COOP	Continuity of Operations	
CIPP	Critical Infrastructure Protection Program	

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		1
DHS	Department of Homeland Security	
	Disaster	A disaster involves the occurrence or threat of significant casualties and/or widespread property damage that is beyond the capability of the local government to handle with its organic resources. Characteristics include: • Involves a large area, a sizable population, and/or important facilities. • May require implementation of large-scale evacuation or in-place sheltering and implementation of temporary shelter and mass care operations. • Requires community-wide warning and employee and public instructions. • Requires a response by all local response agencies operation under one or more incident commanders. • Requires significant external assistance from other local response agencies, contractors, and extensive state or federal assistance, including other NASA Centers. The EOC will be activated to provide general guidance and direction, provide emergency information to employees and the public, coordinate state and federal support, and coordinate resources support for emergency operations.
		For the purposes of the NRP, a major disaster (as defined by The Stafford Act) is any catastrophe, regardless of the cause, which in the determination of the president causes damage or sufficient severity and magnitude to warrant major disaster federal assistance.
	Emergency	An emergency is an occurrence or event, natural or human-caused, which requires an emergency response to protect life or property. Characteristics include: • Involves a large area, significant population, a danger to employees (i.e., tornado, chemical release, etc.) or important facility(ies). • May require implementation of evacuation or inplace sheltering and implementation of temporary shelter and mass care operations. • May require Center-wide warning and employee instructions.

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		 May require some external assistance from local response agencies, contractors, or limited assistance from state or federal agencies.
		The EOC will be activated to provide general guidance and direction, coordinate external support, and provide resource support for the incident
EDC	Emergency Dispatch Center	
EOC	Emergency Operations Center	Specially equipped facilities from which government officials exercise direction and control and coordinate necessary resources in an emergency situation.
EPP	Emergency Preparedness Plan	
	Emergency Situations	As used in this plan, this term is intended to describe a range of occurrences, from a minor incident to a catastrophic disaster.
FEMA	Federal Emergency Management Agency	
	Hazard Analysis	An assessment of local hazards that have caused or possess the potential to adversely affect employee or public health and safety, the environment or property.
HAZMAT	Hazardous Material	A substance in a quantity or form posing an unreasonable risk to health, safety, and/or property when manufactured, stored, or transported. The substance, by its nature, containment, and reactivity, has the capability for inflicting harm during an accidental occurrence. Is toxic, corrosive, flammable, reactive, an irritant, or a strong sensitizer, and poses a threat to health and the environment when improperly managed. Includes toxic substances, certain infectious agents, radiological materials, and other related materials such as oil, used oil, petroleum products, and industrial solid waste substances.
HSPD-5	Homeland Security Presidential Directive 5	
	Incident	An incident is a situation that is limited in scope and potential effects. Characteristics of an incident

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		 include: Involves a limited area and/or limited population. Evacuation or in-place sheltering is typically limited to the immediate area of the incident. Warning and employee instructions are provided in the immediate area, not community-wide. One or two local response agencies or departments acting under an incident commander normally handle incidents. Requests for resource support are normally handled through agency and/or departmental channels. May require limited external assistance from other local response agencies or contractors. For the purposes of the NRP, incidents include the full range of occurrences that require an emergency response to protect life or property
ICP	Incident Command Post	
ICS	Incident Command System	
	Inter-Local Agreements	Arrangements between governments or organizations, either public or private, for reciprocal aid and assistance during emergency situations where the resources of a single jurisdiction or organization are insufficient or inappropriate for the tasks that must be performed to control the situation. Commonly referred to as Mutual-Aid Agreements.
JSC	Johnson Space Center	
JFO	Joint Field Office	
JIC	Joint Information Center	
JPD	JSC Policy Document	
JPR	JSC Procedural and Requirements	
NASA	National Aeronautics and Space Administration	

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NIMS	National Incident Management System	
NRP	National Response Plan	
NSEP	National Security Emergency Plan	
OSHA	Occupational Safety & Health Administration	
OEM	Office of Emergency Management	
	Public Information	Information that is disseminated to the public via the news media before, during, and or after an emergency or disaster.
	Stafford Act	The Robert T. Stafford Disaster Relief and Emergency Assistance Act authorizes federal agencies to undertake special measures designed to assist the efforts of states in expediting the rendering of aid, assistance, emergency services, and reconstruction and rehabilitation of areas devastated by disaster.
SOP	Standard Operating Procedures	Approved methods for accomplishing a task or set of tasks. SOPs are typically prepared at the directorate or office level. May also be referred to as Standard Operating Guidelines.

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ATTACHMENT B: FUNCTIONAL ANNEXES & HAZARD-SPECIFIC APPENDICES

Functional Annexes

Warning (JWI 1040.5) Annex A:

Annex B: Communications (JWI 1040.6)

Annex C: Shelters (JWI 1040.7)

Radiological Protection (JWI 1040.8) Annex D:

Evacuation (JWI 1040.9) Annex E:

Fire Prevention and Control (JWI 1040.10) Annex F:

Annex G: Security (JWI 1040.11)

Annex H: Medical/Occupational Health Service (JWI 1040.12)

Emergency Public Information (JWI 1040.13) Annex I:

Damage Assessment (JWI 1040.14) Annex J:

Utilities (JWI 1040.14) Annex K:

Resource Management (JWI 1040.16) Annex L:

Annex M: Recovery Plan (JWI 1040.17)

Annex N: Emergency Operations Center (JWI 1040.18)

Human Resources and Office of the Chief Financial Officer (JWI 1040.19) Annex O:

Annex R: Transportation (JWI 1040.20)

Annex S: Training (JWI 1040.21)

Legal Services (JWI 1040.22) Annex T:

Hazard-Specific Appendices

Appendix 1: Fire & Explosion Plan (JWI 1040.23)

Appendix 2: Hurricane Management Plan (JWI 1040.24) Appendix 3: Security Contingency Plan (JWI 1040.25)

Appendix 4: Hazardous Substance Release/Spills (JWI 1040.26)

Appendix 5: JSC Aircraft Mishap Plan (JWI 1040.27)

Appendix 6: Pandemic Flu Response Plan (JWI 1040.28)



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ATTACHMENT C: FUNCTIONAL RESPONSIBILITY MATRIX

Annex Letter(s)	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	R	S	Т	App 1	App 2	App 3	App 4	App 5	App 6
Center Operations Directorate																								
Environmental Services Office (JE)/D. Hickens																						Р		
Security (JS4)/E. Smith	S	S	S	S	S	S	Р							S					S	S	Р		S	S
Planning/Integration (JP)/P. Fox										Р			S	S					S		S			
Office of Emergency Management (JS7)/M. Soltis	Р	S	Р		Р		S		S	S	S	Р	S	Р		S	Р		S	Р	S			Р
Logistics Division (JB)/K. Wyont			S		S							S				Р			S	S				
Facility Management (JM)/Ken Chevalier	S		S	S	S		S			S	Р		Р	S					S	S				
Human Resources (AH)/S. Evans					S		S		S			S	S		Р				S	S	S		S	S
Chief Counsel (AL)/D. Shafer																		Р						
Communications & Public Affairs Office (AP)/B. Dean	S	S			S		S	S	Р				S	S					S	S	S		S	S
Office of the Chief Financial Officer (BA)/D. Birmingham													S		S					S				
Procurement Office (R. Etchberger												S	S		S					S				
Flight Crew Operations Division (CA)/K. Aboteen																				S			Р	
Information Systems Directorate (IT)/T. Lindsey		Р												S					S					
Safety & Test Operations Division (NS)/J. Taylor	S	S	S	S	S	Р	S			S				S			S		Р	S	S			
JSC Clinic Services (SD3)/A. Plaza			S	S	S		S	Р	S				S	S					S	S	S	S	S	S
Radiation Safety Officer (SD26)/D. Waggett				Р																				
Spaceflight Meteorology Group (ZS8)/R. Lafosse																				S				

P = Primary responsibility

S = Support responsibility

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ATTACHMENT D: NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS)

A. BACKGROUND

- 1. NIMS is a comprehensive national approach to incident management that is applicable to all jurisdictional levels and across functional disciplines. This system is suitable across a wide range of incidents and hazard scenarios, regardless of size or complexity. It provides a flexible framework for all phases of incident management, as well as requirements for processes, procedures and systems designed to improve interoperability.
- 2. NIMS is a multifaceted system that provides a national framework for preparing for, preventing, responding to, and recovering from domestic incidents.

B. COMPONENTS

- 1. Command and Management. The incident management structures employed by NIMS can be used to manage emergency incidents or non-emergency events such as celebrations. The system works equally well for small incidents and large-scale emergency situations. The system has built-in flexibility to grow or shrink depending on current needs. It is a standardized system, so personnel from a variety of agencies and geographic locations can be rapidly incorporated into a common management structure.
 - a. Incident Management System. A system that can be used to manage emergency incidents or non-emergency events such as celebrations.

1) FEATURES OF ICS

- ICS has a number of features that work together to make it a real management system. Among the primary attributes of ICS are:
- a) Common Terminology. ICS requires the use of common terminology, such as the use of standard titles for facilities and positions within an organization, to ensure efficient and clear communications.
- b) Organizational Resources. All resources including personnel, facilities, major equipment, and supply items used to support incident management activities must be "typed" with respect to capability. This typing will minimize confusion and enhance interoperability.
- c) Manageable Span of Control. Span of control should ideally vary from three to seven. Anything less or more requires expansion or consolidation of the organization.

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- d) Organizational Facilities. Common terminology is used to define incident facilities, the activities conducted at these facilities, and the organizational positions that can be found working there.
- e) Use of Position Titles. All ICS positions have distinct titles.
- f) Reliance on an Incident Action Plan. The incident action plan, which may be verbal or written, is intended to provide supervisory personnel a common understanding of the situation and direction for future action. The plan includes a statement of objectives, organizational description, assignments, and support material such as maps. Written plans are desirable when two or more jurisdictions are involved, when state and/or federal agencies are assisting local response personnel, or there has been significant turnover in the incident staff.
- g) Integrated Communications. Integrated communications includes interfacing disparate communications as effectively as possible, planning for the use of all available systems and frequencies, and requiring the use of clear text in communications.
- h) Accountability. ICS is based on an orderly chain of command, check-in for all responders, and only one supervisor for each responder.

2) UNIIFIED COMMAND

- a) Unified Command is a variant of ICS used when there is more than one agency or jurisdiction with responsibility for the incident or when personnel and equipment from a number of different agencies or jurisdictions are responding to it. This might occur when the incident site crosses jurisdictional boundaries or when an emergency situation involves matters for which state and/or federal agencies have regulatory responsibility or legal requirements.
- b) ICS Unified Command is intended to integrate the efforts of multiple agencies and jurisdictions. The major change from a normal ICS structure is at the top. In a Unified command, senior representatives of each agency or jurisdiction responding to the incident collectively agree on objectives, priorities, and an overall strategy or strategies to accomplish objectives; approve a coordinated Incident Action Plan; and designate an Operations Section Chief. The Operations Section Chief is responsible for managing available resources to achieve objectives. Agency and jurisdictional resources remain under the administrative control of their agencies or jurisdictions, but respond to mission assignments and direction provided by the Operations Section Chief based on the requirements of the Incident Action Plan.

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3) AREA COMMAND

- a) An Area Command is intended for situations where there are multiple incidents that are each being managed by an ICS organization or to oversee the management of large or multiple incidents to which several Incident Management Teams have been assigned. Area Command becomes Unified Area Command when incidents are multijurisdictional.
- b) The organization of an Area Command is different from a Unified Command in that there is no operations section, since all operations are conducted on-scene, at the separate ICPs.
- b. Multiagency Coordination Systems. Multiagency coordination systems may be required for incidents that require higher level resource management or information management. The components of multiagency coordination systems include facilities, equipment, EOCs, specific multiagency coordination entities, personnel, procedures, and communications; all of which are integrated into a common framework for coordinating and supporting incident management.
- c. Public Information. The NIMS system fully integrates the ICS Joint Information System (JIS) and the Joint Information Center (JIC). The JIC is a physical location where public information staff involved in incident management activities can collocate to perform critical emergency information, crisis communications, and public affairs functions. More information on JICs can be obtained in the DHS National Incident Management System Plan, dated March 2004.
- 2. <u>Preparedness.</u> Preparedness activities include planning, training, and exercises as well as certification of response personnel, and equipment acquisition and certification. Activities would also include the creation of mutual-aid agreements and Emergency Management Assistance Compacts. Any public information activities such as publication management would also be preparedness activities.
- 3. <u>Resource Management</u>. All resources, such as equipment and personnel, must be identified and typed. Systems for describing, inventorying, requesting, and tracking resources must also be established.
- 4. <u>Communications and Information Management</u>. Adherence to NIMS specified standards by all agencies ensures interoperability and compatibility in communications and information management.
- 5. <u>Supporting Technologies.</u> This would include any technologies that enhance the capabilities essential to implementing the NIMS. For instance, voice and data communication systems, resource tracking systems, or data display systems.

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6. <u>Ongoing Management and Maintenance.</u> The NIMS Integration Center provides strategic direction and oversight in support of routine review and continual refinement of both the system and its components over the long tern.



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ATTACHMENT E: SUMMARY OF MUTUAL-AID/INTERLOCAL AGREEMENTS

- 1. Attachment A, "Agreement Between NASA Lyndon B. Johnson Space Center and Community Partners, Annex N, EOC Direction and Control (JWI 1040.18), to JPR 1040.4, JSC Emergency Preparedness Plan allows JSC to provide for coordinated responses to a wide spectrum of emergencies affecting JSC and the surrounding communities. In addition, it affords JSC the opportunity to share resources, in a non-interference basis, with participating COMMUNITY PARTNERS, thereby further enhancing the emergency response capabilities of everyone involved. The Agreement shall enter into effect as of the date of the last signature and shall remain in effect for a period of five (5) years, unless sooner terminated. Said Agreement may be terminated at any time, in writing, by JSC for any reason. Any COMMUNITY PARTNER may terminate its participation in this Agreement upon thirty (30) days written notice to JSC and the other COMMUNITY PARTNERS.
- 2. Tab 1, MOU Between Harris County, Texas and NASA, to Appendix 1, "Receiving, Storing and Staging Support Plan for Community Emergency", to Annex G, "Security", to JPR 1040.4, JSC Emergency Preparedness Plan allows the two parties to enter into a Memorandum of Understanding (MOU) regarding the provision of warehouse space for a distribution facility for smallpox vaccine and for a warehouse facility for Strategic National Stockpile supplies comprised of emergency medical supplies that would be sent from the federal Centers for Disease Control in the event of a significant catastrophe. The MOU shall remain in effect for a period of three (3) years. The MOU may be terminated upon written notice provided by either party to the other party.